



# State Freight Plan **Freight Improvements**

Iowa Freight Advisory Council | September 10, 2021

# 2022 State Freight Plan

- Required by FAST Act
- Immediate and long-range freight planning activities and investments
- Consultation with FAC
- Due July 2022



## State Freight Plan document outline

Introduction &  
Purpose

System Inventory &  
Performance

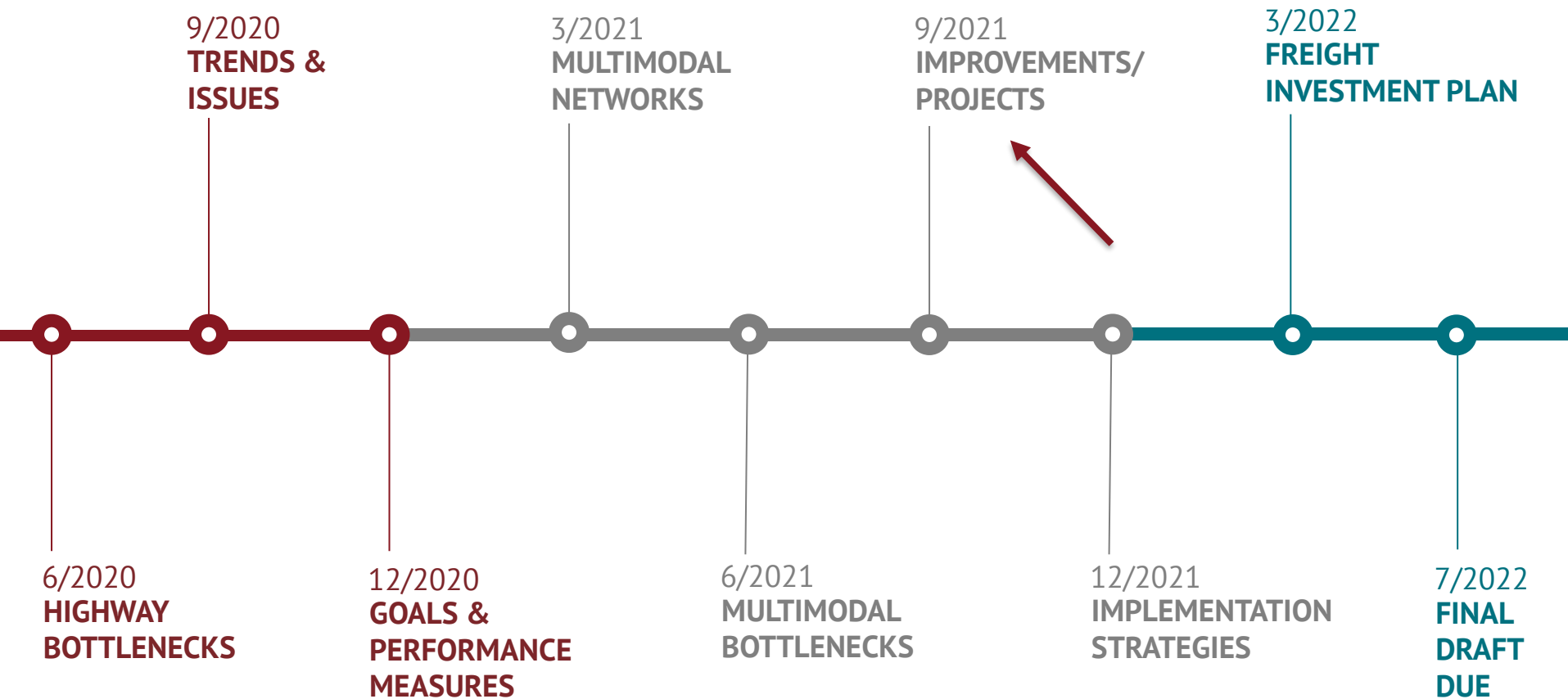
Industries &  
Commodities

Planning  
Considerations

Action Plan

## STATE FREIGHT PLAN

## Input opportunities



## Priority trends & issues

1	<b>Funding</b>	4.58	6	<b>Safety</b>	4.21
2	<b>Agriculture</b>	4.42	7	<b>Resiliency</b>	4.16
3	<b>Lock &amp; Dams</b>	4.32	8	<b>Truck Cargo</b>	4.16
4	<b>Trade</b>	4.26	9	<b>Highway Design</b>	4.16
5	<b>Multimodal</b>	4.26	10	<b>Regulations</b>	4.11

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## Other priorities

High priority (4.00)	Medium priority (3.99-3.50)	Lower priority (3.49-2.11)	Suggested items to consider
Intermodalism	Human trafficking	Land use	Rural infrastructure
Trucking issues	Mississippi River cargo	Energy	Interstate System
Industry	Manufacturing	Sourcing	Rail crossing safety
	Rail network	Automated trucking	Sustainable investment
	E-commerce	Economics	Container availability
	Rail cargo	Panama Canal	Pipelines
	First mile/last mile	Missouri River cargo	
	Automation	Fuel	
	Oversize/overweight	Aviation trends	
	Bio renewables	Air cargo	
		Coal decline	

# Goals & performance measures



## SAFETY

Improve the **safety, security, and resilience** of the national freight system.

## INFRASTRUCTURE

Modernize **freight infrastructure and operations** to grow the economy, increase competitiveness, and improve quality of life.

## INNOVATION

Prepare for the future by supporting the development of **data, technologies, and workforce capabilities** that improve freight system performance.

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# Industry perspective

SAFETY	INFRASTRUCTURE	INNOVATION	OTHER
<p><b>Accidents</b> (totals, severity, causes, claims)</p> <p><b>Safety scores</b></p> <p><b>Labor force</b> (training, adherence to requirements)</p> <p><b>Investment</b> (totals, cost, upgrades)</p> <p><b>Operations</b> (mitigating impacts)</p>	<p><b>Condition</b> (roads, tracks, locks)</p> <p><b>Maintenance</b> (inspections, plans)</p> <p><b>Operations</b> (mitigating impacts, congestion reporting, connections)</p> <p><b>Investment</b> (totals, cost)</p> <p><b>Performance</b> (total assets, costs of shipping, reliability)</p>	<p><b>Efficiency</b> (time, fuel, reliability)</p> <p><b>Productivity &amp; profitability</b> (automation, costs, competitiveness)</p> <p><b>Labor force</b> (training, satisfaction, jobs added)</p> <p><b>Technologies</b> (tracking, electronic HOS, PTC, automation)</p>	<p><b>Economics</b> (jobs, global competitiveness, value of shipments)</p> <p><b>Sustainability</b> (funding, environmental)</p> <p><b>Intermodal &amp; multimodal</b> (connections)</p>

## Multimodal networks

- Objective:
  - Designate freight network locations to protect and enhance for improved freight mobility.
- Methodology:
  - **Air:** major cargo airports
  - **Highway:** 30% truck traffic or 1000 truck AADT or 1000 OSOW permits annually
  - **Rail:** 5 million tons per mile
  - **Water:** marine highways

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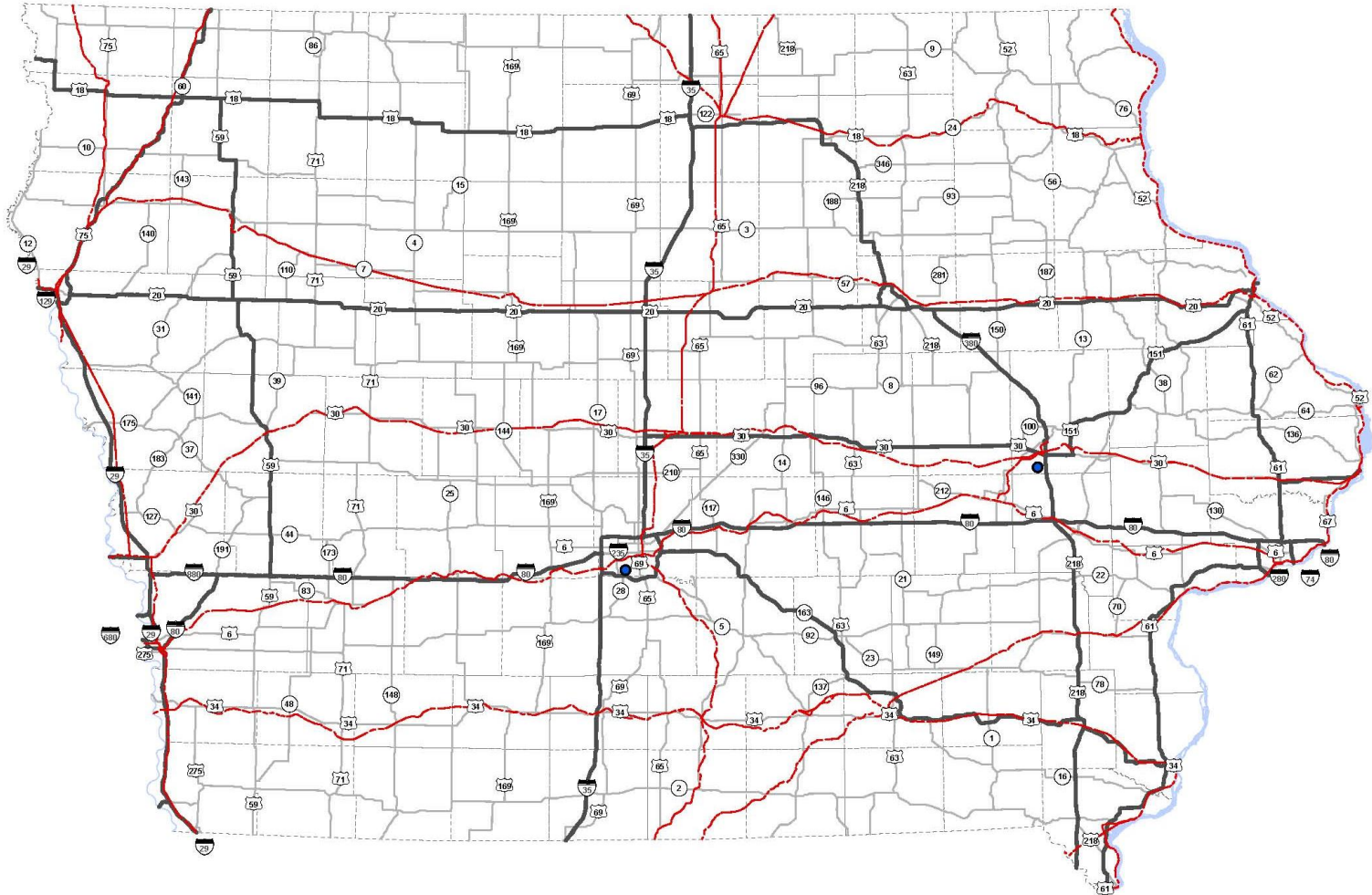
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## Iowa Multimodal Freight Network



## Multimodal bottlenecks

- Objective
  - Identify freight bottleneck locations to mitigate for improved freight mobility
- Identification and prioritization
  - **Air:** N/A
  - **Highway:** 28 locations identified using INRIX and truck traffic analysis
  - **Railroad:** 38 locations provided by railroads
  - **Inland waterway:** 19 locations on M-35 marine highway

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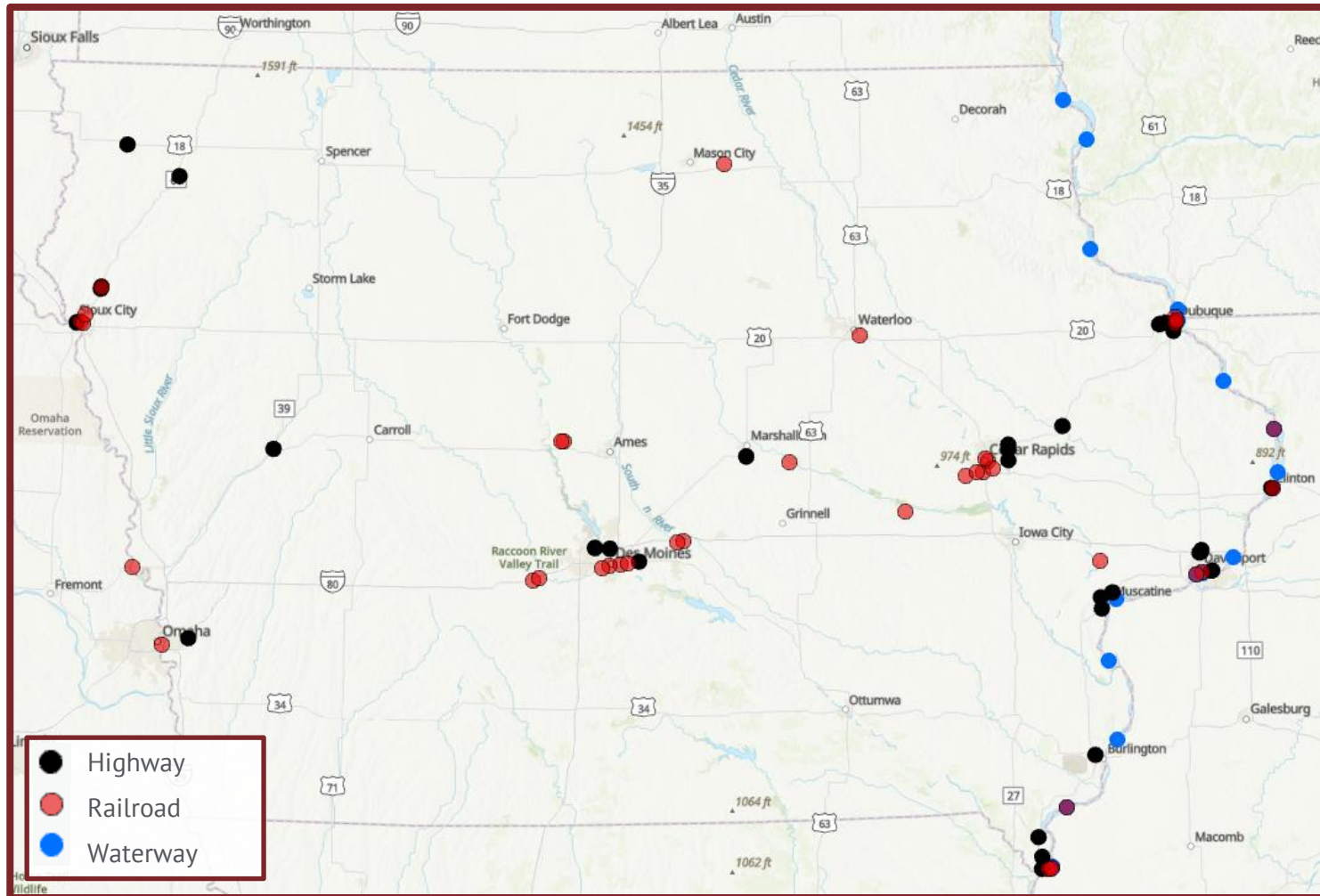
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## Multimodal bottlenecks



## Freight improvements

- Objective
  - Identify priority locations to target for improved freight mobility
- Source of identification and prioritization
  - **Air:** DSM and CID
  - **Highway:** VCAP matrix
  - **Railroad:** Companies operating in Iowa
  - **Inland waterway:** U.S. Army Corps of Engineers

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## Air

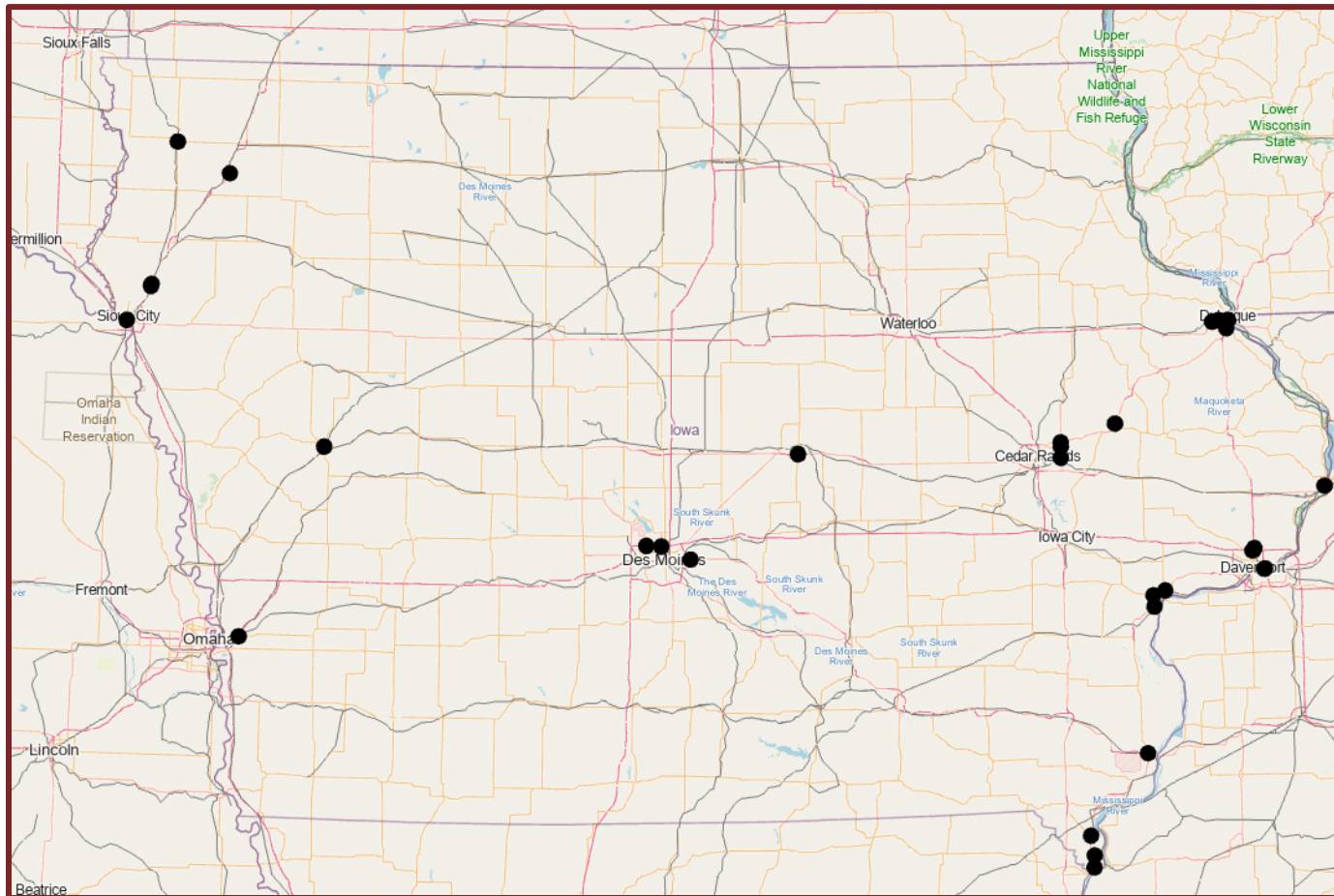
- Des Moines International Airport
  - Completed new FedEx facility and runway reconstruction
  - Development plan includes cargo-related development as demand increases
- Eastern Iowa Airport
  - Three cargo ramps and cargo buildings are 90% utilized
  - 2021 Master Plan update underway to help guide development of 76 acres set aside for cargo handling



## Highway

- Value, Condition, and Performance (VCAP)
- Prioritize highway bottleneck locations by:
  - value (iTRAM)
  - condition (ICE)
  - performance (INRIX)
- Includes:
  - 28 priority locations on the state freight network

## Highway improvements



### VCAP – Top 10

1. US 52 at US 61/US 151 (Dubuque)
2. NE 70<sup>th</sup> Street at Iowa 163 (Altoona)
3. US 61 at Grandview Ave (Muscatine)
4. US 151/Iowa 13 at Mt Vernon Rd (Cedar Rapids)
5. US 20 at US 61/US 151 (Dubuque)
6. US 218 at US 61 (Keokuk)
7. Iowa 22 at US 61 (Muscatine)
8. US 61 at Iowa 38 (Muscatine)
9. US 59 at Iowa 39 (Denison)
10. US 75 at C60 (Hinton)

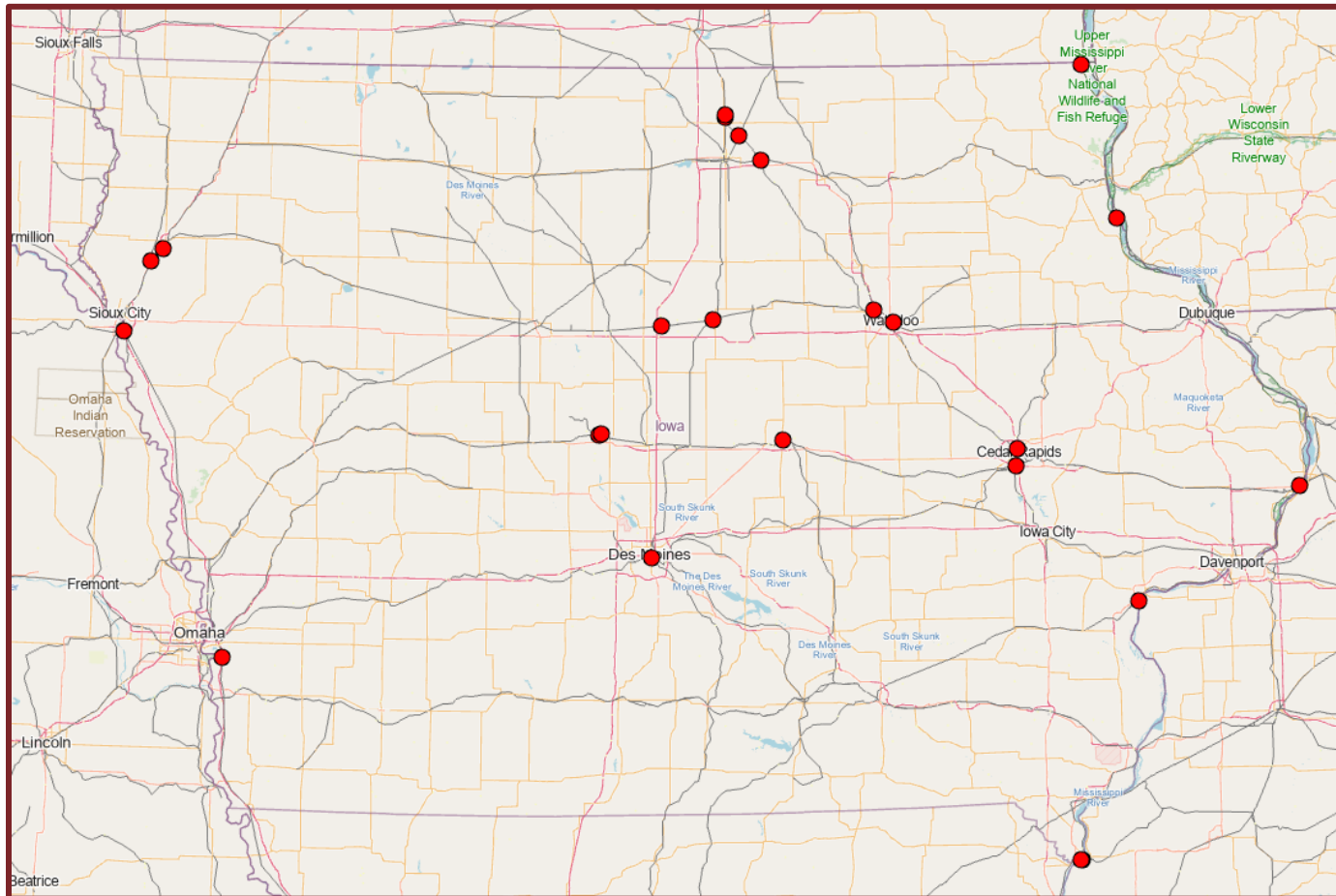


## Railroad

- Projects provided by:
  - Railroads operating in Iowa
- Compiled in 2017; updated 2020 & 2021
- Includes:
  - 42 short-range projects (1-5 years)
  - 64 long-range (5+ years)
  - Of the above, 31 short-range and 55 long-range on the state freight network



## Railroad improvements



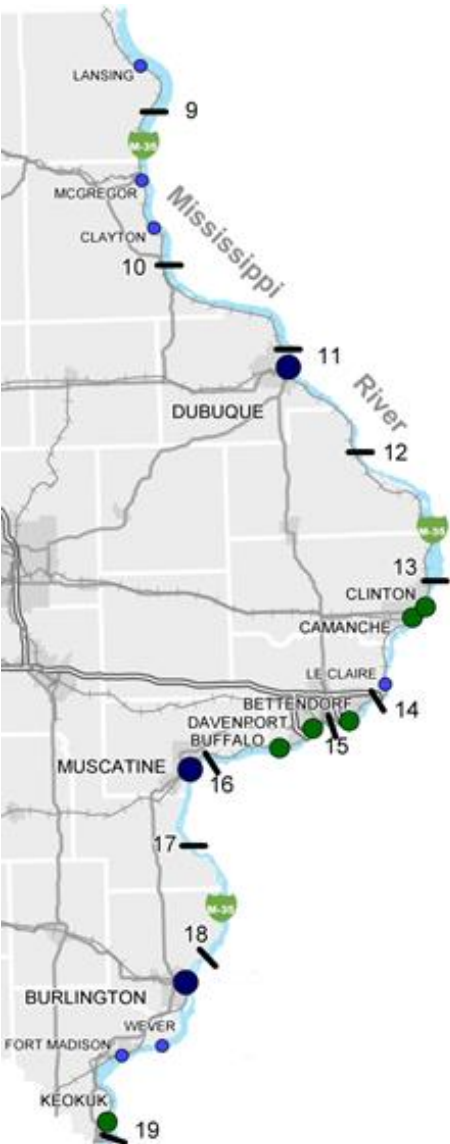
Map includes short-range freight railroad improvements on the state freight network

Map does not include any statewide grade crossing improvement and upgrade projects

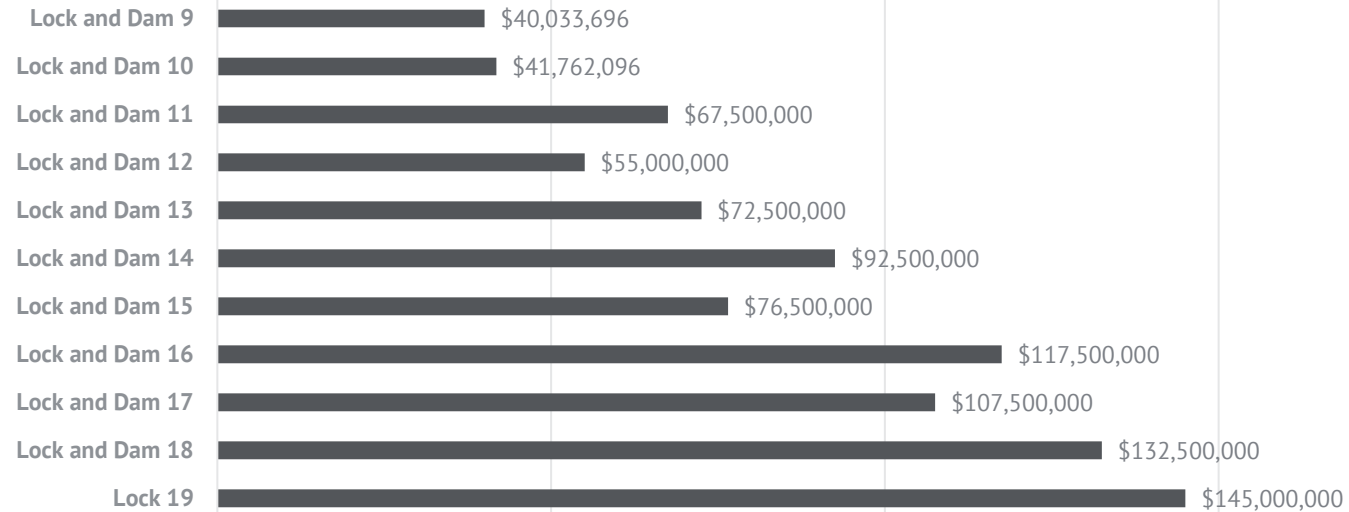
Full project list is included in the Iowa State Rail Plan

## Waterway

- Projects provided by:
  - U.S. Army Corps of Engineers
  - St. Paul District (LD 9 & 10)
  - Rock Island District (LD 11-19)
- Includes:
  - 31 priority maintenance projects on the state freight network
  - Deferred/backlog major rehab, repairs, and maintenance by lock



### Inland waterways deferred maintenance cost estimate



### Prioritized maintenance – Top 10 projects

1. Lock 18 Miter Gate Anchorage Replacement
2. Lock 17 Miter Gate Anchorage Replacement
3. Lock 19 PLC System Replacement
4. Lock 17 Upstream Guide wall Sheet pile Transition Wall Repair
5. Lock 13 Filling and Emptying System Replacement
6. Lock 19 Hydraulic Cylinder Rod Replacement
7. Dam 13 Spillway Seepage Cutoff Wall Repairs
8. Lock 14 - Auxiliary Lock/MRPO Guide wall
9. Lock 18 Access Road Repairs
10. 6 Sites Dam Gate Trunnion Repairs



THANK YOU FOR YOUR TIME AND ATTENTION



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